



**A STUDY TO ASSESS THE EFFECTIVENESS OF HOME BASED STEAM INHALATION
THERAPY ON REDUCING THE SYMPTOMS OF ACUTE UPPER RESPIRATORY TRACT
INFECTIONS AMONG UNDER FIVE CHILDREN IN RURAL
KONANKUNTE; BANGALORE.**

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Abstract:

Infections of the respiratory tract are perhaps the most common human ailment. While they are a source of discomfort disability and loss of time for most adults, they are a substantial cause of morbidity in young children and the elderly. Many of these infections run their natural course in older children and in adults without specific treatment and without complications. However, in young infants, small children and in the elderly, or in persons with impaired respiratory tract reserves, it increases the morbidity and mortality rates.

KEY WORDS:

Effectiveness Of Home Based Steam Inhalation

INTRODUCTION

Acute respiratory tract infections (ARI) may cause inflammation of the respiratory tract anywhere from nose to alveoli, with a wide range of combination of symptoms and signs. ARI is often classified by clinical syndromes depending on the site of infection and is referred to as ARI of upper (AURI) or lower (ALRI) respiratory tract. The upper respiratory tract infections include common cold, pharyngitis and otitis media.

Park K.,(2009)

Every year AURI in young children is responsible for an estimated 3.9 million deaths world wide. It is estimated that Bangladesh, India, Indonesia, and Nepal together account for 40 percent of the AURI, is similar in developed and developing countries. This difference is due to high prevalence of malnutrition, low birth weight and indoor air pollution in developing countries.

In India, in the states and districts with high infant and child mortality rates, AURI is also one of the major reasons for which children are brought to the hospitals and health facilities. Hospital records from states with high infant mortality rates show that upto 13% of inpatient deaths in pediatric wards are due to AURI. The proportion of death to AURI in the community is much higher as many children die at home. The reason for high cause facility may be that children are either not brought to the hospitals or brought too late.

The investigator had noticed that the number of the under five children affected with acute upper respiratory tract infection is more than the adults who visit the primary health center and community health center. During the home visit the investigator had also directly seen the difficulties and the burdens that the parents of under five children who are affected with acute upper respiratory tract infection are facing problems both physically and emotionally. The parents say that most of the family's income is spent for the treatment of acute upper respiratory tract infection. Based on the observations made on AURI among under five, the investigator felt the need of assessing the effectiveness of steam inhalation therapy in home environment which is the common and cheap home remedies for acute upper respiratory tract infection.

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of home based steam inhalation therapy on reducing the symptoms of acute upper respiratory tract infections among under five children in rural Konankunte area; Bangalore.

OBJECTIVES

1. To assess the symptoms of acute upper respiratory tract infection among under five children before steam inhalation therapy
2. To assess the symptoms of acute upper respiratory tract infection among under five children after steam inhalation therapy.
3. To compare the symptoms of acute upper respiratory tract infection among under five children before and after steam inhalation therapy.
4. To find out the association between the symptoms of acute upper respiratory tract infection among under five children after steam inhalation therapy with their selected demographic variables.

HYPOTHESES

H1: The mean post test scores is significantly lower than the mean pre test scores of symptoms among under five children with acute upper respiratory tract infection.

H2 : There will be a significant association between the post test scores of symptoms among under five children with acute upper respiratory tract infection with their selected demographic variables.

ASSUMPTIONS

- v Home based steam inhalation may reduce the symptoms of acute upper respiratory tract infection.
- v Home based steam inhalation therapy helps to reduce the hospitalization.
- v Community health nurse has the responsibility in educating the mothers of under five children regarding home based steam inhalation in reducing the symptoms of acute upper respiratory tract infection.

DELIMITATIONS

- Ø The sample size was delimited to 30.
- Ø The data collection period was limited to 5 weeks.

RESEARCH METHODOLOGY

RESEARCH APPROACH

Evaluative approach was used to conduct this study.

RESEARCH DESIGN

The research design for this study was pre - experimental one group pre-test and post test design.

SCHEMATIC REPRESENTATION

GROUP	PRE TEST	INTERVENTION	POST TEST
Group-1	O ₁	X	O ₂

The symbols used were

- O₁ – Pre test to assess the symptoms of acute upper respiratory tract infection among under five children.
- X – Intervention.

02– Post test to assess the symptoms of acute upper respiratory tract infection among under five children after the intervention.

SETTING OF THE STUDY

The study was conducted in rural Konankunte; Bangalore. The total population was 6770. In this the under five children are 130. In this the male under five children are 73 and the female under five children are 57. The children between 2-5 years of age are 106. The area consists of 7 streets.

POPULATION

The populations for this study are under five children in rural Konankunte.

SAMPLE

Under five children between the age of 2-5years with acute upper respiratory tract infection in Rural Konankunte.

SAMPLE SIZE

The sample size comprised of 30 under five children between 2– 5 years with acute upper respiratory tract infection.

SAMPLING TECHNIQUE

Purposive sampling technique was used in this study to select the samples.

INSTRUMENT

i) Description of the tool
The instrument consists of 3 sections.

Section-I

It contains the demographic variables such as age of the child, sex of the child, mode of delivery, type of family, monthly income of the family, past history of acute upper respiratory tract infection.

Section-II

It consists of observation check list which contain 14 items mainly the signs of acute upper respiratory tract infection. Out of which 14 items are signs and 6 items are symptoms.

Section – III

It consists of rating scale for assessment of children with acute upper respiratory tract infection. It consists of 10 items with 4 positive and 6 negative items.

i) Scoring procedure

Observation Checklist

The observational checklist consists of 20 symptoms. Each symptoms if present was given score 1 and for absent 0. The total score was 20. The score was interpreted as follows:

Symptoms	Score	Percentage
Mild	0 - 7	0 - 33
Moderate	8 - 14	34 - 66
Severe	15 -20	67 - 100

RATING SCALE

The rating scale consists of 10 items. It consists of 4 positive and 6 negative items. Each item is rated as never, occasionally, rarely and always. The total score was 30.

Options	Positive Scores	Negative Scores
Never	3	0
Occasionally	2	1
Rarely	1	2
Always	0	3

The score was interpreted as follows:

Items	Score	Percentage
Mild symptoms	0 - 10	0 - 33
Moderate symptoms	11 - 20	34 - 66
Severe symptoms	21 - 30	67 - 100

THE MAJOR FINDINGS OF THE STUDY

Distribution of demographic characteristics of the under five children

- Ø Majority of the children 12 (40%) were in the age group of 4-5 years.
- Ø Most of them were female 16 (53.3%)
- Ø Majority of the children 22(73.3%) were normal vaginal mode of delivery.
- Ø Most of them belong to nuclear family 22 (73.3%)
- Ø Most of the children 19 (63.3%) belong to Rs.2001– Rs.5000 income per month.
- Ø Majority children 16 (53.3%) had rare past history of acute upper respiratory tract infection.

During pre test, the findings revealed that most of the children 26 (86.6%) had moderate symptoms of acute upper respiratory tract and 4 (13.4%) had mild symptoms of acute upper respiratory tract infection before home based inhalation therapy.

During post test after giving home based steam inhalation therapy, the findings revealed that all 30 (100%) children had mild symptoms of acute upper respiratory tract infection.

Highly significant difference was found between pretest symptoms score of acute respiratory tract infection among under five children and post test symptoms scores of acute upper respiratory tract infection after home based steam inhalation therapy among under five children. The mean post test value 3.53 (S.D = 1.95) was lower when compared with the meanpre test value of 21.8 (S.D = 4.45); 't' value was 23.20 which showed highly significant at P < 0.05 level.

The study revealed that there is significant improvement in symptoms clearance in acute upper respiratory tract infection among under five children after steam inhalation therapy.

There was no significant association between the symptom score of acute upper respiratory tract infection after home based steam inhalation therapy, with their demographic variables like age, sex, mode of delivery, type of family, monthly income of the family and past history of acute upper respiratory tract infection.

IMPLICATIONS FOR NURSING

The investigator recommended the following implications drawn from the study which are of vital concern for nursing education, nursing service, nursing administration and nursing research.

NURSING SERVICE

The home based steam inhalation therapy using plain water can be used effectively by the community health nurse in reducing the symptoms of acute upper respiratory tract infection.

NURSING EDUCATION

Nurse educators must reinforce the students to practice simple and cost effective home management procedures in reducing the symptoms of acute upper respiratory tract infection at home and in community centers.

NURSING ADMINISTRATION

The nurse administrators can take initiation in organizing continuing education, in-service education programmes on management of acute upper respiratory tract infection among under five children in home set up and in community centers.

NURSING RESEARCH

- v The findings may be utilized by the emerging researchers for their reference purpose.
- v Further research can be done to measure the effectiveness of medicated home based steam inhalation therapy in reducing the symptoms of acute upper respiratory tract infection among under five children.

RECOMMENDATIONS

1. Similar study can be replicated on a larger sample.
2. A study can be conducted to assess the knowledge and attitude among parents regarding the home based steam inhalation for reducing the symptoms of acute upper respiratory tract infection for under five children.

LIMITATIONS

The investigator faced difficulty in explaining the mothers about the importance of steam inhalation among under five children for reducing the symptoms of acute upper respiratory tract infection and it was time consuming for data collection.

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